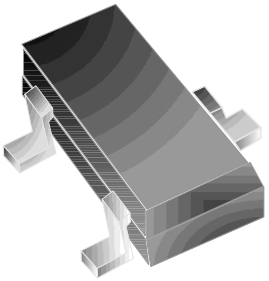
BAV99

Switching Diode Arrays

Features

- Fast Reverse Recovery Time
- Fast Switching Speed
- Low Capacitance
- Available in Lead Free Version
- Continuous Reverse Voltage:Max.75V
- Repetitive Peak Reverse Voltage:Max.85V
- Repetitive Peak Forward Current:Max.450mA

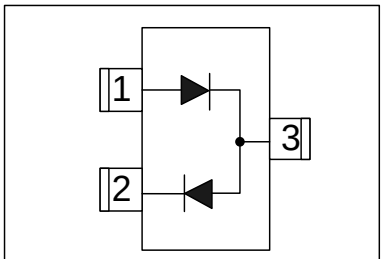


SOT-23

Applications

- Pb-Free Packages are Available
- Signal Termination
- Signal Conditioning
- ESD Suppression
- Transient Suppression

Schematic & PIN Configuration



SOT-23 (Top View)

Absolute Maximum Rating

Characteristic	Symbol	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Continuous Forward Current (Double Diode Loaded)	I_F	125	mA
Continuous Forward Current (Single Diode Loaded)	I_F	215	mA
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive Peak Forward Surge Current at t=1s at t=1ms at t=1μs	I_{FSM}	0.5 1 4.5	A
Power Dissipation	P_{tot}	350	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-65 to +150	℃

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Electrical Characteristics

Parameter	Symbol	Conditions	Max.	Unit
Forward Voltage	V_F	I_F=1mA I_F=10mA I_F=50mA I_F=150mA	715 855 1 1.25	mV mV V V
Reverse Current	I_R	V_R=25V V_R=75V V_R=25V;Tj=150℃ V_R=75V;Tj=150℃	30 1 30 50	nA μA μA μA
Diode Capacitance	C_d	f=1MH$_Z$,V_R=0V	1.5	pF
Reverse Recovery Time	T_{rr}	when switched from I_F=10mA to I_R=10mA; R_L=100Ω; measured at I_R=1mA	4	ns
Forward Recovery Voltage	V_{fr}	when switched from I_F=10mA; tr=20ns	1.75	V

Typical Characteristics

Figure.1 Forward Characteristics

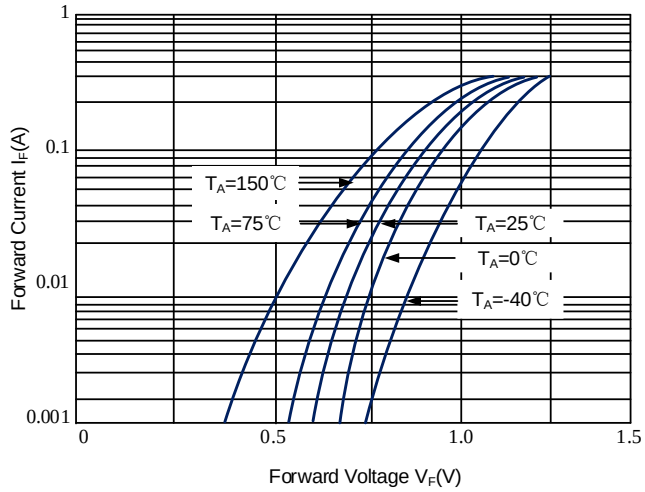


Figure .2 Power Derating Curve

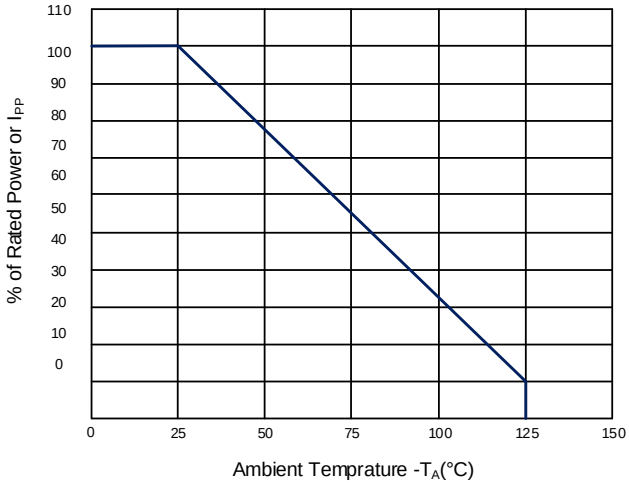


Figure. 3 Normalized Junction apacitance vs. Reverse Voltage

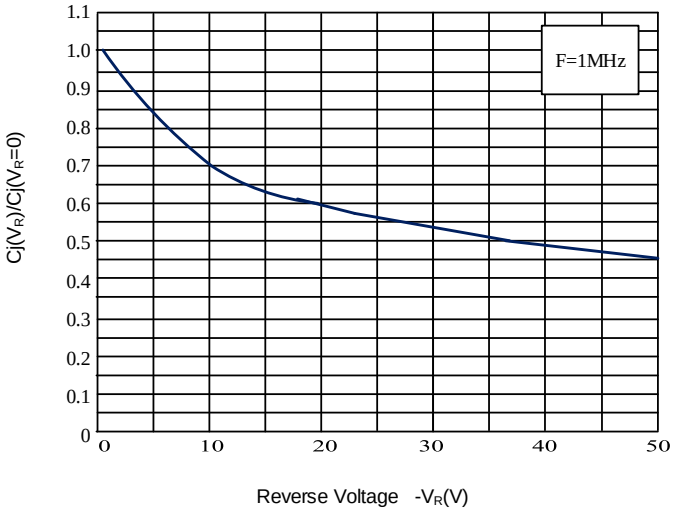
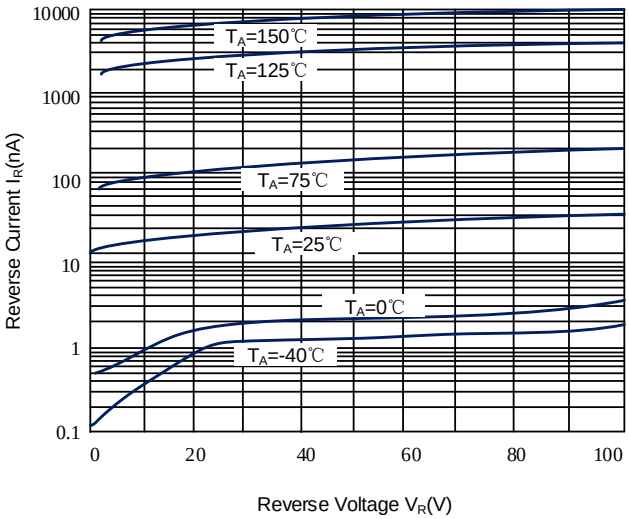
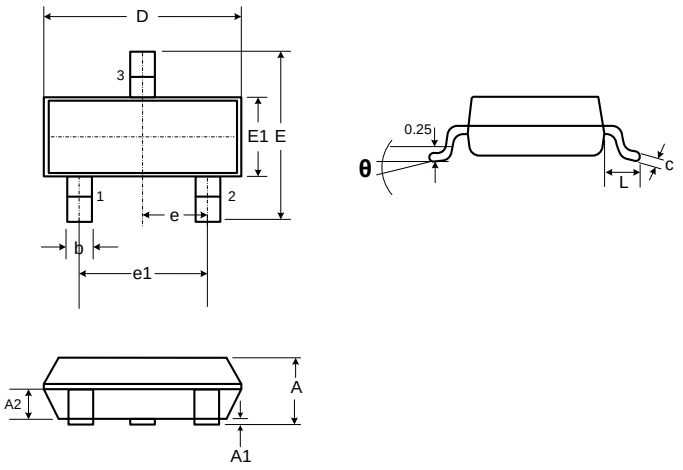


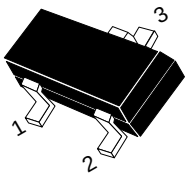
Figure.4 Typical reverse Characteristics



Outline Drawing – SOT-23

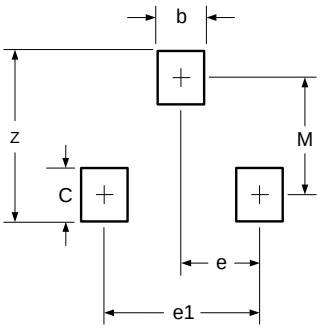
PACKAGE OUTLINE





SOT-23

DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.90	1.15	0.035	0.045
A1	0.00	0.10	0.000	0.004
A2	0.60	0.70	0.0236	0.0275
b	0.30	0.50	0.012	0.020
c	0.08	0.15	0.003	0.006
D	2.80	3.00	0.110	0.118
E	2.25	2.55	0.089	0.100
E1	1.20	1.40	0.047	0.055
e	0.95 BSC		0.0374 BSC	
e1	1.80	2.00	0.071	0.079
L	0.30	0.50	0.012	0.020
θ	0	8°	0	8°



DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.0795	2.02
C	0.0315	0.80
Z	0.111	2.82
e	0.037 BSC	0.95 BSC
e1	0.075 BSC	1.9 BSC
b	0.0315	0.80

Notes

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Pin 3 is the cathode (Unidirectional Only).
4. Dimensions are exclusive of mold flash and metal burrs.

Marking Codes

Part Number	BAV99
Marking Code	A7

Package Information

Qty：3k/Reel

CONTACT INFORMATION

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.